

REMARKS

The Office Action dated May 10, 2004 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 20-38 are pending in the present application, and are respectfully submitted for consideration.

Claims 20-22, 24, 28-31, 34 and 37-38 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,018,647 (*Fitzgerald*). The Office Action took the position that *Fitzgerald* disclosed all the features of these claims. Applicant respectfully traverses this rejection, and submits that *Fitzgerald* does not disclose or suggest all the features of claims 20-22, 24, 28-31, 34 and 37-38.

Claim 20, upon which claims 21-22, 24, 28-31 and 34 are dependent, recites a receiver for receiving a plurality of different signals at the same time. The receiver includes means for identifying at least one strongest signal of the plurality of different signals. The receiver also includes a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of the at least one strongest signal with respect to the other of the plurality of signals. The filter includes an input to receive the plurality of different signals and an output providing the plurality of different signals with signals within the frequency band of the one strongest signal being attenuated.

Claim 37 recites a base station incorporating a receiver for receiving a plurality of different signals at the same time. The receiver includes means for identifying at least one strongest signal of the plurality of different signals and a filter for attenuating the at

least one strongest signal with respect to the other of the plurality of signals. The filter has an input to receive the plurality of different signals and an output providing the plurality of different signals with the at least one strongest signal being attenuated.

Claim 38 recites a method for receiving a plurality of different signals at the same time. The method includes identifying at least one strongest signal of the plurality of different signals. The method also includes filtering the at least one strongest signal with respect to the other of the plurality of signals by a filter having an input to receive the plurality of different signals and an output providing the plurality of different signals with the at least one strongest signal being attenuated with respect to the other of the plurality of signals.

As discussed in the specification, examples of the present invention employ only one filter, such that the filter is located logically after to be responsive to the identification means. The at least one strongest signal is identified and subjected to attenuation in order to reduce the dynamic range of a multi-carrier receiver. Examples of the present invention describe a filter provided with an output providing a plurality of different signals with at least one strongest signal being attenuated. It is respectfully submitted that *Fitzgerald* fails to disclose or suggest all the elements of any of the presently pending claims. Therefore, *Fitzgerald* fails to provide the critical and unobvious advantages discussed above.

Fitzgerald relates to a diversity reception system. *Fitzgerald* describes selecting a receiver from a plurality of receivers having the highest quality reception at a given time.

A receiver selector 180 outputs an audio signal of selected receiver 102 on an audio line 184. Audio line 184 is coupled to an output filter 200 for removing any high-speed transients that may be induced by high-speed switching between receivers 102. *Fitzgerald* further describes receiver selector 180 outputting only signals from receiver 102 that have the highest quality audio output at any given time. *Fitzgerald*, however, does not disclose or suggest a receiver for receiving a plurality of different signals and identifying at least one strongest signal of the plurality of different signals. *Fitzgerald* also does not disclose or suggest a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of the at least one strongest signal with respect to the other of the plurality of signals.

In contrast, present claim 20 recites "a receiver for receiving a plurality of different signals at the same time." Claim 20 also recites "means for identifying at least one strongest signal of said plurality of different signals." Claim 20 further recites "a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of said at least one strongest signal with respect to the other of said plurality of signals." Claims 37 and 38 also recite some of these features, except are drawn to a base station and a method, respectively. Applicant respectfully submits that the cited reference does not disclose or suggest at least these features of the presently pending claims.

Applicant submits that *Fitzgerald* does not disclose or suggest a single receiver for receiving a plurality of different signals at the same time. As noted above, *Fitzgerald*

describes selecting a receiver from a plurality of receivers according to the highest quality reception at a given time. Thus, *Fitzgerald* has a number of receivers and selects whichever of these has the best quality signal. *Fitzgerald* does not disclose selecting its receiver according to reception at a single receiver. Moreover, *Fitzgerald* does not disclose or suggest identifying the strongest of the signals within a single receiver. Therefore, *Fitzgerald* does not disclose or suggest a receiver for receiving a plurality of different signals, and identifying at least one strongest signal of the plurality of different signals at the receiver.

Fitzgerald also does not disclose or suggest a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band. As noted above, *Fitzgerald* describes an output filter for removing any high-speed transients that may be induced by high-speed switching between receivers. The output filter of *Fitzgerald* does not disclose or suggest attenuating within an adjustable frequency or being adjustable to attenuate only within another frequency band of one of its received signals. In fact, *Fitzgerald* does not disclose or suggest that its output filter attenuates any of the signals selecting the receiver with the highest quality reception. Therefore, *Fitzgerald* does not disclose or suggest an output filter having an input to receive a plurality of different signals and an output providing the plurality of different signals with signals within a frequency band of one strongest signal that is being attenuated. Thus, *Fitzgerald* does not disclose or suggest all the features of independent claims 20, 37 and 38.

Applicant also submits that *Fitzgerald* does not disclose or suggest the features of the dependent claims. With regard to the dependent claims, the Office Action alleged that the features recited in these claims are "inherently included" in *Fitzgerald*. "In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis included); MPEP 2112. To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be recognized as such by persons of ordinary skill. In re Robertson, 169 F.3d 743, 745, 49 U.S.Q.P.2d 1949, 1950-51 (Fed. Cir. 1999); MPEP 2112. Applicant respectfully traverses the assertion of inherency in the Office Action.

Applicant submits that the Office Action does not provide any basis in *Fitzgerald* to support that the alleged inherent characteristics of the dependent claims necessarily flow from the teachings of *Fitzgerald*. Therefore, applicant submits that these features are not inherently included in *Fitzgerald*. For example, *Fitzgerald* does not disclose or suggest a basis to support that a notch filter, as recited in claim 22, necessarily flows from the output filter. Further, *Fitzgerald* does not disclose or suggest a basis to support that the coupler recited in claim 28 necessarily flows from the selection process or the output filter.

Applicant submits that *Fitzgerald* does not disclose or suggest all the features of claims 20-22, 24, 28-31, 34 and 37-38. Therefore, applicant respectfully requests that the anticipation rejection of these claims in view of *Fitzgerald* be withdrawn.

Claims 20-22, 24, 28-31, 34 and 37-38 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,018,555 (*Mahany*). The Office Action took the position that *Mahany* disclosed all the features of these claims. Applicant respectfully traverses this rejection and submits that *Mahany* does not disclose or suggest all the elements of claims 20-22, 24, 28-31, 34 and 37-38.

Independent claims 20, 37 and 38, and their respective dependent claims, are summarized above.

Mahany relates to a network utilizing modified preambles that support antenna diversity. *Mahany* describes a diversity protocol that selects the best antenna based on a performance comparison. *Mahany* selects the best antenna from a plurality of antennae based on the performance comparison. Once the best antenna is identified and selected, the receiver performs adaptive filtering to minimize multi-path interference using a remaining bit sequence in a field 509. *Mahany*, however, does not disclose or suggest identifying at least one strongest signal of a plurality of different signals or a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of the at least one strongest signal with respect to the other of the plurality of signals.

In contrast, present claim 20 recites a receiver including "means for identifying at least one strongest signal of said plurality of different signals." Claim 20 also recites "a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of said at least one strongest signal with respect to the other of said plurality of signals." Applicant submits that *Mahany* does not disclose or suggest at least these features of the pending claims.

Applicant submits that *Mahany* does not disclose or suggest identifying at least one strongest signal of a plurality of different signals. *Mahany* describes selecting a best antenna out of a plurality of antennae based on a performance comparison. This selection process does not disclose or suggest a single receiver selecting at least one strongest signal received by the single receiver. Further, the selection process does not disclose or suggest attenuating the at least one strongest signal with respect to the other of the plurality of signals. Applicant submits *Mahany* does not disclose or suggest at least these features in performing its selection process.

Applicant submits that *Mahany* also does not disclose or suggest a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of at least one strongest signal with respect to the other of a plurality of signals. In fact, *Mahany* describes that a receiver performs adaptive filtering to minimize multi-path interference after an antenna is selected. This adaptive filtering does not disclose or suggest a filter for attenuating within an adjustable frequency band the strongest signal with respect to the other signals. Thus, applicant submits that

Mahany does not disclose a filter for filtering the at least one strongest signal with respect to the other of the plurality of signals having an input to receive the plurality of different signals and an output providing the plurality of different signals with the at least one strongest signal being attenuated.

The Office Action alleged that the features described by dependent claims 21, 22, 24, 28, 29, 30, 31 and 34 are inherently included in *Mahany*. As discussed previously with respect to *Fitzgerald*, to show inherency, the Office Action must show a basis in fact and/or technical reasoning to reasonably support a determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. Further, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Applicant submits that the features recited in the dependent claims are not inherent to the teachings of *Mahany*. As is the case with *Fitzgerald*, the Office Action has not provided any evidence or basis that the claimed features necessarily flow from the teachings of *Mahany*. Therefore, applicant respectfully submits that these features are not inherently included in *Mahany*.

Applicant submits that all the features of claims 20-22, 24, 28-31, 34 and 37-38 are not disclosed or suggested by *Mahany*. Therefore, applicant respectfully requests that the anticipation rejection of these claims be withdrawn.

Claims 23, 25-27, 32-33 and 35-36 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Fitzgerald* in view of U.S. Patent No. 5,852,651

(*Fischer et al.*) The Office Action took the position that *Fitzgerald* disclosed all the features of the claimed invention except an analogue to digital converter that is coupled to the output of the filter, whereby the at least one strongest signal is in the dynamic range of the analogue to digital converter after being attenuated by the filter. The Office Action then alleged that *Fischer* disclosed these features missing from *Fitzgerald*. Applicant respectfully traverses this rejection and submits that neither *Fitzgerald* nor *Fischer*, either alone or in combination, disclose or suggest all the elements of any of the presently pending claims.

Claim 20 is summarized above. Claims 23, 25-27, 32-33 and 35-36 depend directly or indirectly from independent claim 20.

Fischer relates to a cellular communication system with sectorization. *Fischer* describes a radio frequency signal from a main antenna being filtered to a first set of filters 1, one for each signal assigned to a microcell. The combined filtered main signal is then applied to an analogue to digital converter. A second set of filters receives a diversity signal from the diversity antenna. The diversity signal also is applied to the analogue to digital converter. *Fischer* describes the strongest signal being selected for use in accordance with conventional diversity technology. *Fischer*, however, does not disclose or suggest identifying at least one strongest signal of a plurality of different signals or a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of at least one strongest signal with respect to the other of the plurality of signals.

In contrast, as discussed above, present claim 20 recites a receiver including "means for identifying at least one strongest signal of said plurality of different signals." Claim 20 also recites "a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band one of said at least one strongest signal with respect to the other of said plurality of signals." Applicant submits that the cited references, either alone or in combination, do not disclose or suggest at least these features of independent claim 20.

Applicant submits that *Fischer* does not disclose or suggest those features of claim 20 missing from *Fitzgerald*. *Fischer* does not disclose or suggest a means for identifying at least one strongest signal of a plurality of different signals. Further, *Fischer* does not disclose or suggest a filter for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of the strongest signal with respect to others of the plurality of signals. *Fischer* describes the strongest signal being selected for further processing after filtering. This aspect of *Fischer* does not disclose or suggest the features of claim 20, described above.

With regard to the dependent claims, applicant submits that *Fischer* also does not disclose or suggest an analogue to digital converter that is coupled to the output of a filter, whereby at least one strongest signal is in a dynamic range of the analogue to digital converter after being attenuated by the filter. The converter of *Fischer* is not coupled to the output of the filter. Further, the analogue to digital converter of *Fischer* is

not coupled to an identifying means for identifying the selected signal. Therefore, *Fischer* does not disclose or suggest all the features recited in the claims.

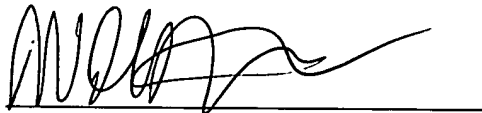
As discussed above, claim 20 is not rendered obvious by the cited references, either alone or in combination. Claims 23, 25-27, 32-33 and 35-36 depend directly or indirectly from claim 20. If an independent claim is non-obvious, then any claim dependent therefrom also is non-obvious. MPEP 2143.03. Therefore, applicant respectfully submits that claims 23, 25-27, 32-33 and 35-36 are not rendered obvious by the cited references and requests that the obviousness rejection be withdrawn.

Therefore, it is submitted that each of claims 20-38 recite subject matter that is neither disclosed nor suggested by the cited references. It is therefore respectfully requested that all of claims 20-38 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. F. Nixon', written over a horizontal line.

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